Climatological Data for March, 1910.

DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

The winter of 1909–10 in the Great Basin was unusually severe, but was followed by a very warm March. The temperature during the month averaged much above normal and higher than that of any previous March on record. The precipitation, however, was much below normal and also the lowest on record.

TEMPERATURE.

The mean temperature for the district, as a whole, was 45.2°, which is 7.7° above the normal. The mean temperatures of the various stations in the district ranged from 57.4° at Jean, Nev., to 32.0° at Truckee, Cal.

Temperatures were quite uniform over the greater portion of the district, there being only a few stations whose mean temperatures varied greatly from the mean for the district, 45.2°.

Temperatures were above normal the entire month, excepting a few days from the 27th to the 30th when frosts occurred generally, but little or no damage was done. On account of the generally uniform temperatures throughout the month, the highest and lowest for the month at the various stations were reported on several dates. Most stations reported maximum temperatures of over 70°, but the highest was 88° at Jean, Nev., on the 5th and 18th. The lowest was 10° at Tecoma, Nev., on the 1st, and at Ibapah, Utah, on the 28th.

PRECIPITATION.

March was unusually dry, and for the district as a whole it was one of the driest months on record. The amounts were below normal in all portions of the district and at a few stations no precipitation at all occurred. The greatest falls occurred in central Utah, and the least in Nevada and western Utah.

Some light showers fell on the 1st and 2d at a few places in Wyoming, Idaho, and Utah. It then remained practically fair until the 14th, after which showers fell occasionally at scattered stations until the 29th. The remaining days of the month were fair. At many stations in the district no precipitation occurred from the 1st to the 22d. The heaviest precipitation for the month was 4.96 inches at Glen Alpine Springs, Cal., where 2.05 inches fell in 24 hours, which was the greatest 24-hour amount reported.

Very little snow fell during the month and the weather being unusually warm that remaining on the ground melted rapidly at the lower levels. In the mountains less snow was reported on the average than last year, and the amounts were generally less than normal. The snow was well packed, however, and some of it in the form of ice, which is a condition favorable for late melting, thereby indicating a good water supply for the coming season.

On account of the very unusual weather during this month, the following remarks by the section directors are interesting:

Wyoming.—The month was the warmest March in the history of Wyoming, the mean temperature averaging from 10° to 11° per day above normal, and from 5° to 6° per day above the previous warmest March, which was in 1905. The precipitation was very light.

Utah.—March was delightfully warm in western Utah, particularly during the first 2 decades, when it was as warm as is usual in late April or early May, and there was also practically no precipitation during this period. However, the precipitation deficiency was partially overcome during the last decade when several showers occurred in the agricultural regions, and some snow fell in the mountains.

The mean temperature was more than 2° higher than the highest previous State average. The temperature was excessive everywhere, all departures being unusually large.

This was the driest March of record with one exception, namely, March, 1900. The least precipitation fell in the more level parts of the State along the western border. However, at scattered stations elsewhere, even in the mountains, very small amounts were measured.

On all the southerly slopes the indications of spring were the earliest ever known in the State. Blackbirds and robins came earlier, frogs were heard earlier, and all vegetation began to grow much in advance of the usual time. Grass became green early in the month, and pastures were excellent thereafter, and winter grain, which promised less well earlier, was revived splendidly and progressed far ahead of its usual condition at this time of the year.

During the warm weather in the early part of the month, the snow melted so rapidly as to cause a great rise in many streams, particularly in Sanpete County where several bridges were washed away.

Nevada.—The warm weather which prevailed during the latter part of February continued through March, with the exception of a moderately cold spell which lasted from the 23d to the 27th. It was the warmest and driest March on record. The unusual excess in temperature was general in all sections, the plus departures ranging from 5° to 8° with but few exceptions. The great deficiency in precipitation was general, each station having a minus departure of considerable magnitude.

SALT AND DUST STORM AT SALT LAKE CITY, UTAH.

No rain, excepting a couple of traces, fell at Salt Lake City from March 1 to 21, during which time it was very hazy. On March 22, about 7 o'clock in the evening, light rain began, becoming moderately heavy about 10 o'clock. Those who were out at the time noticed deposits of salt on their clothes. In the morning tiny spicules of salt on window panes, and dust or very fine sand on roofs and sidewalks were observed. The fine sand or dust deposits were in very observable quantities.

These so-called dust and salt storms always occur in rainstorms following long dry periods. The dust and salt of the so-called Great American Desert is carried up into the higher levels of the atmosphere by rising currents of air. When the wind is heavy enough to cause the waves to break on Great Salt Lake, a salt spray is formed. The water of the spray evaporates leaving the salt suspended in the air. This salt in its finely divided state is carried upward like the fine dust.

Two processes are involved in precipitating these suspended dust and salt particles to the earth. First, condensation always takes place on solid particles, these forming the nuclei of all cloud particles, and they are, of course, borne down to the earth when the rain begins. In addition, the rain also washes out of the atmosphere more of the dust and salt mites by absorbing them as the raindrops strike them in their descent, leaving the atmosphere clearer than it had been previously. This last process was the more important of the two in accounting for the large deposits of dust and salt found the morning following the storm of the 22d.

HUMBOLDT RIVER FLOODS.

During the warm weather of the last 2 days of February and the 1st of March, 1910, melting snow swelled the Humboldt River, Nev., beyond the highest stage known in 20 or 25 years. The railroad grades were disastrously washed in many places, as the Southern Pacific Line runs close to the stream a great deal of the way; many bridges were also taken out and short sections of the track washed away from below Winnemucca, Nev., to the headwater regions of the stream. The Western Pacific Railroad also suffered the loss of considerable grading and a number of bridges.

Farms were flooded and cut out badly in many districts and littered with wreckage and débris. A great many animals thought to have been corraled in safety on the high ground were taken away by the sudden floods and drowned. Several hundred miles of county highways were rendered impassable, and the loss of a large number of wagon-road bridges was reported.

While northwestern Utah lay under several inches of heavy snow at the close of February, which went away with great rapidity at this time, the floods east of the Nevada line were conspicuously less than those west, due in all probability, to the

lack of concentration, or confinement of the waters to certain limited canyons or streams. The country between Great Salt Lake and Nevada is generally level, and the damage was only slight and was quickly repaired, the railroad trains being delayed only a few hours. The old line, however, around to the north of the lake met with slightly more damage than the Lucin Cut-off.

At Cobre, Nev., where the Nevada Northern Railroad connects with the Southern Pacific Line, the latter road was reported damaged from $30,000 to $40,000. The warmth and flooding, however, were said to have been a benefit to the agricultural interests in that region, particularly the shepherds. At Loray, Nev., about 75 feet of the track was washed out and a hole was made about 30 feet deep. At Carlin, several dams went out and several head of stock were lost. Meadows were considerably littered and destroyed to some extent, and a number of bridges were taken out.

Mr. R. A. Canoll reports from Elko:

The melted snow from the surrounding hills running into the Humboldt River at this point, caused the stream to rise about 4 feet higher than normal, resulting in considerable damage to all bridges. The county bridge at this place was not taken away, but was weakened and rendered unsafe for traffic. The railroads suffered the greatest loss, due principally to the backing and rising of the water along the fills, and washing out the grade.

In the town, the damage was confined mainly to flooding cellars.

The postmaster at Palisade writes:

The high water at this point did considerable damage. The river rose rapidly and swept the court house from its foundations and carried it down stream against the steel bridge at the Southern Pacific crossing, where it was dashed in pieces. Mr. J. D. Murphy lost his saloon buiding and all his stock and fixtures in the stream.

The Black Hill saloon building and several outhouses and tents were also carried away by the flood. The store building of Mrs. Nannie Raine was turned around and her stock of dry goods, notions, and clothing was practically ruined. The store of Mr. J. P. Raine was flooded to a depth of 6 feet, ruining his stock of groceries and dry goods. His warehouse was also flooded and floated off some 50 feet, but was caught and saved from destruction by some trees.

The county bridge was floated off its piling, but was caught a short way down stream by some wire cables across the stream. Considerable damage was done to the steel bridges of the Southern Pacific Company. In the Palisade Canyon several of them were washed out around the abutments weakening them, or causing them to drop an end into the stream. Washouts occurred in many instances on fills, which diverted the old channel, the high water finding its old and natural course. This caused several days' delay to the trains.

The Eureka and Palisade Railroad in Pine Valley also suffered great damage. The flood washed away their bridge across the Humboldt River at Palisade, and several smaller ones over Pine Creek, where the stream assumed the proportions of a raging torrent. In some places the entire roadbed is gone, and the whole aspect of the river was changed.

Ranchers suffered some loss to fences, bridges, and stock, but no human lives were lost in the floods as far as has been learned. I am unable to state the exact stage of the stream here, but I know it rose more than 6 feet in those few days.

Mr. T. Bergerson at Battle Mountain says:

The floods in this region were caused by a sudden thaw accompanying a chinook wind on February 28.

The valley between Battle Mountain and Austin is something like 93 miles long, and in places over 20 miles wide. This valley was covered, on the average, with 2 feet of snow prior to this thaw. The only outlet to the valley is the Reese River, usually but a little creek.

During the flood the culverts under the Southern Pacific tracks were not large enough to carry the mass of water before them, and hundreds of feet of the track were destroyed.

The older Indians around here claim that the snowfall of the past winter was the heaviest that ever occurred in their recollection. The Humboldt River was over 6 miles wide in places, flooding ranches and drowning hundreds of cattle and other animals.

The Nevada Central track, from Austin to Battle Mountain, was entirely washed away, and it can not be made passable within 2 months.

Mr. J. Buckley writes from Golconda:

At Eglon, and at Tule, 6 and 12 miles, respectively, from Golconda, flood waters from the foothills, washed out from 25 to 100 feet of the track in places, necessitating a large amount of bridge and rock work by trains. This delayed traffic from 24 to 36 hours. No damage was done to the large steel bridge crossing the Humboldt at this point, though the Western Pacific pile bridge was partially wrecked.

The Humboldt on March 1 was higher than it has been for 15 years, but on the 7th, the crest of the flood arrived, bringing the water up to a higher mark than was ever before recorded. Considerable damage was done to county bridges and to ranches. There was no livestock loss here though a number of the ranches had to be abandoned temporarily on account of the high water. In the vicinity of Iron Point, 14 miles east of here, a large number of cattle and horses were drowned. It was thought they had been corralled on high ground above possible floods, but the water swept over the entire region.

Mr. A. F. Langwith writes also from Golconda:

The loss of cattle at Iron Point is variously estimated at from 800 to 1,500. Many are still in the water (March 14) and many carcasses are floating in the stream, and an unknown number marooned on the high places are being kept alive by hay taken to them on rafts.

The Official in Charge of the Local Office of the Weather Bureau at Winnemucca reports:

The Humboldt River, which was becoming dangerously high during the last few days of February, reached its maximum height here about midnight of the 7–8th, when water was running over the approaches to the county bridge to a depth of about 2 feet. The rise was due to the advance down the Humboldt of a wave of high water, reported in Palisade Canyon March 1, where several Southern Pacific trestles and nearly all of the Western Pacific track were washed away. The only material damage done here was to the dirt approaches to the bridge which were washed out in many places. The flood reached Lovelock, 75 miles west, on the 12th and the bridges at that place were destroyed. Considerable stock was reported drowned at all points in the valley. Since the 8th the river has been slowly falling at this point, being about 4 feet lower.

The Official in Charge of the Local Office of the Weather Bureau at Reno, furnishes the following notes on the flood:

Rapid melting of snow caused the waters to rush over the icy floors into the tributaries of the Humboldt River and the headwaters of this stream were at the flood stage, from about the point where Palisade is located to the sources of the streams, on the last day of February and the first of March. The crest of the flood reached Winnemucca near midnight of the 7–8th, and the vicinity of Lovelock about the 12th, although it does not seem to have been so well marked when it reached the latter place.

Reports indicate that little damage was done in the valleys of the tributaries to the Humboldt. The melting of the snow at these higher altitudes was not sufficient to cause damaging floods, but was an advantage to many localities in melting a good deal of snow which was not needed. Some slight damage was done to roads, but no more than is usual for the spring season. In the Humboldt Valley the chief damage was done to railroads. Ranchers suffered some damage to fences, bridges, and the loss of stock all along the valley. At Elko slight damage resulted from the waters flooding the town, and at Palisade several buildings were washed away.

It seems that much damage was done in the Lovelock Valley by the Humboldt floods. This is a farming country and it seems that all of the irrigation dams were injured or totally washed away. The dams for three large irrigation systems, viz: the Marker Dam, the Union Canal Dam, and the Irish-American Dam, were washed away. The banks of the river channel were eroded to 3 times their original distance apart. The lower half of the valley is inundated and 1,500 acres of previously productive land will not produce a crop this year. The loss in Lovelock Valley is placed at $100,000 by Mr. John S. Case, editor of the Lovelock Tribune, and the postmaster believes this to be a conservative estimate.

WINDSTORM OF MARCH 29, 1910.

Beginning about midnight, March 28, a windstorm swept over northern Utah, which was particularly severe over Great Salt Lake, where the waves were high and violent. The wind blew until the middle of the afternoon, March 29, from the northwest. The grade of the Southern Pacific Railroad at a point just west of Promontory Point, a projection from the north in the middle of the lake, was considerably damaged, and traffic was delayed several hours. The wind velocity was reported to be 70 miles an hour at the Midlake station.

The Western Pacific Railroad grade across the southern end of the lake was badly weakened for several miles, and traffic was suspended, and up to the middle of April had not been resumed. The waves from the north were very high, and the grade was quickly eaten away by the action of the heavy water.

CLARK ROAD REPAIRS.

The work of repairing the line of the San Pedro, Los Angeles, and Salt Lake Railroad that suffered from washouts in and near Caliente, Nev., last January, has commenced. The intention is to rebuild the old line through Meadow Valley wash and use

it for train service temporarily, until the new line, located at a higher elevation, is ready for use.

The Las Vegas Age quotes Vice-President J. Ross Clark as follows:

A special corps of engineers will take the field at once for the running of the new line, which will be pushed as rapidly as possible. Meantime the old road will be rebuilt. This will give us a safe line during the summer, and will give us a line to work from in our building project for the new line.

The cost of reconstructing the old line will not exceed $400,000, but what the new line will cost we do not know. There is a large part of the old line that can be used, and most of the big steel bridges in the canyon are in excellent shape.

Our supplies were ordered long ago, and a great part of them already are on hand here, and in Salt Lake. We will work on the old line from both ends at once, and will probably have it in shape within 90 days. After that the new line will be completed, and the old one will be taken up. In many places we will be able to use the old line all the time, so our cost on the new will not be excessive.

Mr. Bancroft agrees with me in the estimate of the cost; the reports sent out from Salt Lake that our loss is $12,000,000 are absolutely without foundation.

RELATION OF PRECIPITATION AND STREAM FLOW TO IRRIGATION PROJECTS.

By DANIEL W. MEAD, Consulting Engineer, Madison, Wis.

In order that any irrigation project be financially and agriculturally successful, an adequate supply of water must be absolutely assured for practically every irrigation season. A thorough consideration of this matter is, therefore, of primary importance.

The best information concerning the amount of water that can be obtained from any source is the actual and continuous measurement of the quantity of water from that source for a sufficient length of time to cover all varying climatic conditions which affect the flow of water from year to year, from season to season, and from day to day.

Unfortunately, in many cases these observations are not available for a long period of years, but observations covering a short period, while affording no criterion for judging the variations which will take place in the flow of a stream during a long term of years, are of value when comparing them with other and more extended records.

VARIATIONS IN STREAM FLOW.

The great variations that take place from year to year in the run-off of a stream is well shown by the measured annual discharge of the Provo River. The discharge of this stream has been measured almost continuously since 1889, or for about 20 years. For the year 1902 no flow records are available, and for some other years records of measurements are missing. In the following discussion of this stream the missing data have been supplied by adding to the actual measurement of flow, the mean discharges calculated from the actual flow for other years, for the missing months, so that the estimates as given are nearly complete and fairly accurate. Figure 1 gives the total annual discharge of the Provo River for each year from 1889 to 1908, inclusive, both in inches in depth and in acre feet per square mile from the drainage area. It will be noted that the annual discharge has varied from a minimum of 6.18 inches in 1905 to 14.42 inches in 1907. The maximum being 234 per cent. of the minimum.

It is evident, therefore, that it is necessary to observe stream flow for a considerable term of years in order to cover all probable variations, for in 20 years of observations on the Provo River, the flow of no other years has approached very closely to either the maximum flow of 1907 or the minimum flow of 1905.

EFFECT OF PRECIPITATION ON STREAM FLOW.

It is obvious that precipitation, including both rain and snow, is the primary cause of stream flow, and it would naturally be expected that an increase in rainfall will result in an increase in stream flow. While, as a rule, this is true, there are found to be radical exceptions to this rule. These exceptions are due to the fact that other conditions, besides the total amount of precipitation, enter into the problem.

It is obvious that not all of the precipitation that falls on a drainage area will flow away in the stream. Much of the precipitation will be evaporated and a considerable amount may seep into the ground and flow away through the soil and subsoil, perhaps to some distant point outside of the river basin, or may reappear at some lower level on the same drainage basin and augment the stream flow weeks or months after the rain from which it came has ceased. This condition gives rise to the continuous flow that takes place in streams often during long dry periods during which no precipitation occurs.

The manner of the occurrence of rainfall is important, for if a given rainfall be light, a much greater percentage is evaporated, and a less quantity will flow in the stream. In the same manner a heavy rainfall may give rise to flood conditions and a greater percentage will flow away in the stream, and less be lost in evaporation. The condition of the soil and its porosity are also important. If the soil has been recently saturated it will not take up the quantity of water that will be taken up if no rain has fallen for a considerable period, and hence the greater percentage will be delivered to the stream when one rainstorm rapidly succeeds another. Temperature, also, has a decided influence on evaporation, hence, if the rainfall occurs during high temperature conditions, a greater proportion will be evaporated and lost to the stream. If the precipitation occurs during low temperature it may be held in snow and delivered to the stream when the temperature conditions are again favorable for such results.

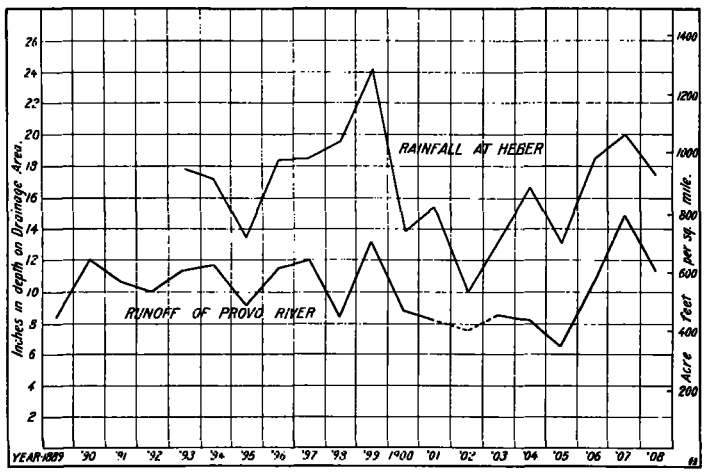

FIG. 1.

The slope of the ground, or the topographical conditions of the drainage area also influence stream flow, for if the slope be abrupt the water will run quickly to the stream, while if the drainage area be level the delivery will be slow and evaporation and seepage will have greater effect.

From these conditions it will be seen that among many important influences which modify and control the flow of a stream are:

1. Quantity of rainfall.
2. Intensity, or manner of occurrence of rainfall.
3. Temperature.
4. Geological conditions.
5. Topographical conditions.

It is usually impossible to gage all these conditions with accuracy, so that conclusions must be more or less approximate on account of imperfect knowledge of the relative weight of each of the controlling conditions.

That stream flow actually varies with rainfall, although not in direct proportion, and that it is always less in amount, is

TABLE 1.—*Climatological data for March, 1910. District No. 10, Great Basin.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	
Wyoming.																				
Border	Uinta	6,085	8	36.8	+11.0	67	21†	10	6	37	0.29	− 1.26	0.11	.....	4	21	7	3	w.	S. W. Condron.
Cokeville	....do	.....	...	34.6	.....	62	19	13	6†	35	0.72	.....	0.31	2.0	5	23	4	4	nw.	E. J. Tuckett.
Evanston	....do	6,860	14	39.6	+10.4	65	19†	17	10†	37	0.72	− 0.78	0.47	2.0	3	19	9	3	w.	Frank Tucker.
Idaho.																				
Geneva	Bear	.....	2	.....	.....	.....	.....	.....	.....	.....	0.46	.....	0.32	0.0	2	26	2	3	.....	F. W. Boehme.
Grace	Bannock	5,406	3	.....	.....	.....	.....	.....	.....	.....	0.67	.....	0.35	T.	3	19	2	10	s.	Cyril B. Dickson.
Oxford	....do	4,750	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Edwin Smith.
Paris	Bear Lake	5,946	16	37.4	+ 9.3	66	20	13	9	34	0.25	− 1.11	0.09	7.5	3	22	9	0	w.	John Norton.
Stone	Oneida	4,520	2	43.1	.....	74	21	14	5†	50	0.12	.....	0.12	0.0	1	23	5	3	n.	Thos. W. Roe.
Weston	....do	4,460	12	44.2	+ 7.1	73	21	20	10†	39	0.87	− 0.99	0.38	0.0	3	21	2	8	n.	Wm. Chatterton.
Utah.																				
Alpine	Utah	4,900	13	.....	.....	.....	.....	.....	.....	.....	1.05	.....	0.40	0.0	3	20	8	3	.....	George Stevens.
Annabella	Sevier	5,250	5	.....	.....	.....	.....	.....	.....	.....	0.13	.....	0.09	0.0	2	.....	.....	.....	.....	J. W. Fairbanks.
Beaver	Beaver	6,000	7	50.0	.....	69	4†	21	29	32	1.38	.....	0.62	9.5	5	16	10	5	sw.	James Connell.
Black Rock	Millard	4,872	10	46.1	.....	76	21	17	10	47	0.50	.....	0.20	.....	3	13	6	12	.....	W. D. Livingston.
Castle Rock	Summit	6,244	7	.....	.....	.....	.....	.....	.....	.....	0.31	.....	0.10	.....	4	19	5	7	.....	David Moore.
Cedar City	Iron	5,750	5	48.8[b]	.....	73[b]	4	22[b]	10†	35[b]	0.52	.....	0.28	0.0	5	21	4	6	ne.	Parley Dalley.
Corinne	Boxelder	4,240	40	47.4	+ 7.4	76	22	25	27†	43	0.60	− 0.85	0.60	0.0	1	13	15	3	ne.	A. C. Murphy.
Deseret	Millard	4,541	16	47.2	+ 6.7	76	21	18	10†	49	0.60	− 0.39	0.35	0.0	2	19	5	7	n.	S. W. Western.
Enterprise	Washington	4,270	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Day.
Farmington	Davis	4,267	10	47.1	.....	76	21	27	30	34	0.83	.....	0.58	2.0	2	23	7	1	sw.	Charles Boylin.
Fillmore	Millard	5,100	20	50.8	+ 9.8	78	20	23	10	41	0.88	− 1.10	0.43	0.0	3	.....	.....	.....	.....	J. J. Starley.
Friese Summit	Wasatch	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.27	.....	0.51	12.5	3	19	8	4	s.	Victor A. Friese.
Frisco	Beaver	7,318	16	46.8	+ 8.3	70	5	20	10	35	0.43	− 0.35	0.28	0.6	2	.....	.....	.....	.....	E. R. Smyth.
Garrison	Millard	.....	7	49.8[c]	.....	74[c]	4	18[c]	30	46[c]	T.	.....	.....	.....	.....	9	9	3	s.	E. M. Smith.
Government Creek	Tooele	5,277	10	46.6	.....	72	21	22	10†	41	0.81	.....	0.43	4.0	4	18	6	7	s.	Walter James.
Grantsville	..do	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.30	.....	0.18	.....	2	.....	.....	.....	.....	Allen J. Fraser.
Heber	Wasatch	5,606	17	42.0	+ 8.3	70	19†	18	10†	40	0.95	− 1.39	0.30	4.0	5	16	8	7	s.	John Crook.
Henefer	Summit	5,301	11	43.2	.....	73	20†	17	30	42	1.60	.....	0.60	3.8	5	18	5	8	w.	Wm. Brewer.
Ibapah (near)	Tooele	7,500	5	39.8[a]	.....	63[a]	17	10[a]	28	36[a]	0.20	.....	0.15	1.4	3	16	6	9	w.	J. S. Lawton.
Ibex	Millard	.....	.....	52.4	.....	79	17	25	30	39	0.17	.....	0.17	0.0	1	13	4	14	s.	John J. Watson.
International	Tooele	5,370	.....	48.2[a]	.....	72[a]	21	27[a]	10	26[a]	0.93[a]	.....	0.44[a]	1.7[a]	6[a]	17	6	8	sc.[a]	I. S & R. Co.
Kanosh	Millard	5,250	2	.....	.....	.....	.....	.....	.....	.....	0.56	.....	0.32	.....	3	.....	.....	.....	.....	Geo. Crane.
Kelton	Boxelder	4,230	32	41.7	.....	67	19†	20	12	40	T.	− 0.52	T.	0.0	0	13	14	4	nc.	F. W. Klock.
Levan	Juab	5,010	20	46.4	+ 9.8	74	21	21	30	35	0.73	− 1.48	0.45	T.	4	13	12	6	sw.	Wm. Brown.
Logan	Cache	4,507	19	45.0	+ 9.8	69	21	25	29	29	1.25	− 0.75	0.70	2.0	2	.....	.....	.....	n.	Edgar Brossard.
Lucin	Boxelder	4,504	6	45.6	.....	72	21	25	10†	41	0.00	.....	0.00	0.0	0	16	11	0	.....	C. J. Burke.
Manti	Sanpete	5,575	16	39.6	+ 1.6	63	20	20	30	26	0.65	− 1.03	0.41	0.0	3	14	5	12	.....	J. M. Anderson.
Marion	Summit	6,750	6	.....	.....	.....	.....	.....	.....	.....	0.81	.....	0.32	4.5	5	12	9	10	s.	Jas. Woolstenhulme.
Marysvale	Piute	6,180	11	44.7	.....	72	20	17	11†	50	0.36	.....	0.17	T.	5	11	10	10	sc.	John W. Henry.
Meadowville	Rich	6,200	11	37.9	.....	66	20	12	10	36	0.53	.....	0.34	T.	4	22	2	7	s.	J. S. Moffat.
Milford	Beaver	4,962	6	50.4	.....	76	20†	22	27†	40	0.50	.....	0.30	0.0	2	12	4	15	sw.	C. M. Temple.
Millville	Cache	4,848	15	.....	.....	.....	.....	.....	.....	.....	1.06	− 1.06	0.48	.....	7	21	3	7	s.	Fred Yeates.
Minersville	Beaver	5,070	13	.....	.....	.....	.....	.....	.....	.....	0.88	.....	0.45	.....	5	.....	.....	.....	.....	Geo. Roberts, sr.
Modena	Iron	5,479	10	44.4	+ 5.2	71	5	20	11	42	0.80	− 0.47	0.34	4.8	5	12	13	6	w.	U. S. Weather Bureau.
Morgan	Morgan	508	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Visick.
Moroni	Sanpete	5,519	2	.....	.....	.....	.....	.....	.....	.....	0.48	.....	0.34	T.	3	3	27	1	sw.	B. F. Eliason.
Mount Nebo	Utah	4,650	9	47.0	.....	76	20†	22	10	36	0.39	.....	0.20	0.0	3	20	6	5	n.	D. C. Walkey.
Mount Pleasant	Sanpete	5,859	18	45.6[b]	+ 8.0	73[b]	21	19[b]	30	39[b]	0.18[b]	− 1.38	0.10[b]	2.0[b]	3[b]	11[c]	9[c]	6[c]	.....	C. B. Scoville.
Nephi	Juab	6,059	7	.....	.....	.....	.....	.....	.....	.....	0.81	.....	0.76	.....	3	18	10	3	sw.	A. M. Madsen.
Oak City	Millard	4,900	6	50.0	.....	79	21	21	10†	44	0.95	.....	0.63	0.0	2	18	9	4	.....	Peter Nielson.
Ogden	Weber	4,310	9	48.4	+ 6 9	76	21	30	6†	28	1.52	− 1.34	0.86	.....	3	24	5	2	nw.	Enoch Farr.
Panguitch Lake	Garfield	9,000	1	.....	.....	.....	.....	.....	.....	.....	1.00	.....	0.45	8.0	4	10	18	3	s.	Jas. E. Prince.
Park City	Summit	7,800	13	42.4	+12.4	71	10†	15	11	49	0.09	− 3.81	0.04	.....	5	20	10	1	.....	Irvin Evans.
Parowan	Iron	5,970	19	47.4	+ 8.7	82	16	20	13	50	0.42	− 1.46	0.20	.....	3	24	0	7	.....	S. M. Matheson.
Payson	Utah	4,637	7	.....	.....	.....	.....	.....	.....	.....	1.24	.....	0.50	T.	5	9	12	10	sw.	D. L. Coombs.
Pinto	Washington	5,907	13	42.0	+ 6.6	69	3†	17	12	48	0.84	− 1.44	0.46	0.0	4	16	10	5	s.	J. H. Harrison.
Promontory	Boxelder	4,913	39	.....	.....	.....	.....	.....	.....	.....	0.10	− 0.67	0.10	1.0	1	.....	.....	.....	.....	F. C. Houghton.
Provo	Utah	4,532	18	49.7	+ 9.6	77	20†	25	30	37	1.17	− 0.56	0.65	.....	3	13	14	4	n.	James A. Oliver.
Randolph	Rich	6,442	7	.....	.....	.....	.....	.....	.....	.....	0.31	.....	0.18	.....	4	26	2	3	sw.	William Rex.
Richfield	Sevier	5,350	20	47.6[e]	+ 7.8	79[e]	21	20[e]	30	49[e]	0.20[e]	− 0.89	0.20[e]	0.0[e]	1[e]	15[e]	3[e]	6[e]	.....	Joseph J. Jensen.
Saltair	Salt Lake	4,220	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. J. Bench.
Salt Lake City	....do	4,366	36	49.6	+ 8.2	74	21	30	30	36	1.58	− 0.42	0.71	1.5	5	18	10	3	sc.	U. S. Weather Bureau.
Scipio	Millard	5,260	15	44.6	+ 6.5	75	21	15	30	48	1.30	− 0.93	1.00	T.	3	12	8	11	sw.	Thos. Memmott.
Silver City	Juab	6,127	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. L. Stark.
Spanish Fork Canyon	Utah	4,585	1	50.2	.....	76	22	26	30	41	1.39	.....	0.66	.....	4	14	6	11	.....	U. S. Reclamation Service.
Thistle	Utah	5,075	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Denver & Rio Grande Ry.
Tooele	Tooele	4,900	14	47.2	+ 7.6	75	18†	24	10	33	0.96	− 1.17	0.60	.....	2	9	17	5	nw.	E. A. Bonelli.
Utah Lake Pumping Sta.	Utah	4,500	5	48.8	.....	73	22	26	29†	31	1.22	.....	0.51	0.0	4	19	7	5	.....	W. A. Knight.
Woodruff	Rich	6,500	12	39.7	.....	67	22	15	30	41	0.05	.....	0.02	0.5	4	23	1	7	w.	B. D. Brown.
Oregon.																				
Burns	Harney	4,157	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. C. Welcome, jr.
Christmas Lake	Lake	4,320	2	42.0	.....	66	13	14	29	44	0.43	.....	0.32	0.0	5	8	12	11	sw.	John C. Green.
Paisley	....do	4,500	6	46.2	+ 6.9	67	13	23	24	32	0.67	− 4.20	0.27	0.0	5	19	6	6	.....	E. C. Woodward.
"P" Ranch	Harney	4,300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. P. Jefferson.
Silver Lake	Lake	4,700	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wm. Holder.
California.																				
Al Tahoe	Eldorado	6,235	....	37.9[b]	.....	64[b]	3	13[b]	24	43[b]	1.17[b]	.....	0.52[b]	5.2[b]	6[b]	15	6	10	sw.[b]	A. R. Sprague.
Boca	Nevada	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Glen Alpine Springs	Eldorado	6,850	....	36.4[d]	.....	59[d]	7	11[d]	25	38[d]	4.96[d]	.....	2.05[d]	21.0[d]	8[d]	9	4	18	s.[d]	E. W. Porteous.
Tahoe	Placer	6,240	....	37.2	.....	60	4†	16	25	31	2.20	.....	1.40	1.7	3	16	5	10	w.	Robert M. Watson.
Truckee	Nevada	5,819	39	32.0	− 0.9	50	18	18	14†	26	0.24	− 3.90	0.20	2.0	3	21	0	10	.....	Southern Pacific Co.
Nevada.																				
Aurora	Esmeralda	.....	....	41.1	.....	65	2†	15	24	40	T.	.....	T.	0.0	0	13	7	11	n.	
Austin	Lander	6,594	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Bert Acree.
Battle Mountain	....do	4,843	39	46.6	+ 5.1	78	31	22	29	46	0.08	− 0.66	0.08	T.	1	14	11	6	w.	Southern Pacific Co.
Beowawe	Eureka	4,905	39	49.6	+ 8.4	71	19	27	29	35	0.00	− 0.66	0.00	0.0	0	28	1	2	s.	Do.
Carlin	Elko	5,232	39	45.6	+11.0	78	13	20	29†	48	0.00	− 1.10	0.00	0.0	0	26	0	5	sw.	Do.
Carson Dam	Churchill	4,032	3	50.0	.....	72	3	27	30	38	T.	.....	T.	0.0	0	16	6	9	e.	U. S. Reclamation Service.
Cherry Creek	White Pine	6,450	1	43.8	.....	66	17	21	30	35	0.11	.....	0.06	1.3	4	11	15	5	w.	J. H. Leishman.
Clover Valley	Elko	6,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	I. F. Wiseman.
Cobre	....do	.....	.....	40.2	+ 6.2	65	19	17	10†	45	T.	− 1.30	T.	T.	0	15	3	13	nw.	Southern Pacific Co.
Columbia	Esmeralda	5,750	3	49.6	.....	72	3	25	30	39	0.29	.....	0.29	T.	1	13	7	11	sc.	A. Booth.
Dutton	Elko	5,100	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Golconda Cattle Co.
Elko	....do	5,342	39	43.8	+ 7.4	78	18	22	24†	48	0.00	− 1.14	0.00	T.	1	12	13	6	ne.	Southern Pacific Co
Ely	White Pine	6,421	19	36.3	+ 3.4	69	28	15	15	34	0.13	− 1.58	0.08	0.6	2	26	4	1	w.	G. C. Hunting.
Eureka	Eureka	6,500	7	44.0	+ 7.7	67	31	22	29†	39	0.81	− 1.55	0.25	6.5	5	12	6	13	s.	Clay Simms.

TABLE 1.—*Climatological data for March, 1910. District No. 10*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Nevada—Cont'd.																				
Fallon	Churchill	3,965	5	48.6	+ 7.3	73	3†	24	30	43	0.10	− 0.43	0.07	T.	2	22	4	5	ne.	U. S. Reclamation Service.
Fernley	Lyon	4,200	2	49.4	+ 7.8	76	3	25	30	40	0.10	− 0.48	0.10	T.	1	17	5	9	nw.	Mrs. A. J. Rankin.
Gardnerville	Douglas	4,830	10	48.6	+ 6.7	74	2	24	25	40	0.20	− 1.42	0.20	2.0	1	9	18	4	e.	Wm. Dangberg.
Geyser	Lincoln	.....	5	41.9[a]	.....	70[a]	3†	11[a]	10†	52[a]	T.[a]	.....	T.[a]	.....	0[a]	12	10	9	s.[a]	Mrs. J. F. Wambolt.
Glenbrook	Douglas	.....	.....	38.6	.....	59	2	20	24	31	0.35	.....	0.25	2.0	2	17	14	0	sw.	C. C. Henningsen.
Golconda	Humboldt	4,097	31	46.3	+ 5.6	70	19	24	29	35	0.20	− 0.52	0.20	0.0	1	20	11	0	sw.	Southren Pacific Co
Halleck	Elko	5,631	17	41.7[c]	+ 9.3	70[c]	21	20[c]	3	37[c]	0.00[c]	.....	0.00[c]	0.0[c]	0[c]	21	10	0	.....	Do.
Jean	Clark	2,074	2	57.4[c]	.....	88[c]	5†	30[c]	11	53[c]	0.00[c]	.....	0.00[c]	0.0[c]	0[c]	20	6	11	sw.[c]	Salt Lake Route.
Leetville	Churchill	4,020	3	49.8	.....	75	31	25	20	44	0.15	.....	0.15	0.0	1	20	9	2	e.	U. S. Reclamation Service.
Lewers Ranch	Washoe	5,500	22	47.4	+ 7.8	70	7†	24	24†	41	0.50	− 3.41	0.35	1.0	3	3	23	6	.....	Ross Lewers.
Lovelock	Humboldt	3,977	7	51.5	+ 8.0	80	14	26	9	48	0.02	− 0.25	0.01	0.0	2	.....	.....	.....	.....	J. S. Case.
McAfees Ranch	Esmeralda	4,835	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Rodenkirch.
Millett	Nye	.....	2	44.8	.....	70	3†	17	30	49	0.34	.....	0.14	0.0	4	13	11	7	s.	Fred J. Jones.
Mina	Esmeralda	4,600	3	50.2	.....	79	19	21	21	51	0.00	.....	0.00	0.0	0	15	4	12	sw.	Southern Pacific Co.
Mount Rose Ranch	Washoe	.....	.....	41.4	.....	63	2†	18	26†	42	1.20	.....	0.40	9.0	4	18	1	12	sw.	Fred Elkins.
Palmetto	Esmeralda	6,780	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Isaac McConnell.
Potts	Nye	6,990	17	40.6	+ 7.7	63	4	16	30	40	0.05	− 0.94	0.05	0.0	1	8	6	17	n.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	8	45.5[b]	.....	72[b]	13†	22[b]	5	44[b]	0.66	.....	0.22	0.0	5	.....	.....	.....	..w.	F. M. Payne.
Reno	Washoe	4,532	39	47.6	+ 7.5	71	3	24	25	42	0.22	− 0.70	0.14	0.2	4	12	11	8	sw.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	3	49.4	.....	71	18	26	30	44	0.04	.....	0.03	T.	2	15	11	5	ne.	U. S. Reclamation Service.
Tecoma	Elko	4,812	32	43.0	+ 6.2	72	21	10	1	46	0.00	− 1.55	0.00	0.0	0	18	8	5	s.	Southern Pacific Co.
Tonopah	Nye	6,090	3	47.4	.....	68	3	27	28	28	0.20	.....	0.16	T.	2	12	14	5	se.	U. S. Weather Bureau.
Wabuska	Lyon	4,347	7	47.2[c]	.....	72[c]	4	20[c]	5†	48[c]	T.[c]	.....	T.[c]	0.0[c]	0[c]	14	8	9	sw.[c]	J. G. Young.
Wells	Elko	5,631	38	43.6	.....	70	18	23	28	38	0.00	.....	0.00	0.0	0	14	0	17	s.	Southern Pacific Co.
Winnemucca	Humboldt	4,432	31	48.1	+ 8.5	72	13	28	29	37	0.24	− 0.71	0.08	0.3	5	11	9	11	ne.	U. S. Weather Bureau.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for March, 1910. District No. 10, Great Basin.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																																	
Border	Bear		.06																			.03	.09	T.	T.		T.		.11				0.29
Cokeville	do	.09																				T.		.31			.20	.08		.04			0.72
Evanston	do									T.														.47			.17		.08	T.			0.72
Idaho.																																	
Geneva	Bear	.14																						.32									0.46
Grace	do	.20	T.																		.12			T.	T.				.35				0.67
Oxford	do																																
Paris	do																							.08			.08	.09					0.25
Stone	Deep Creek																						.12										0.12
Weston	Bear																							.29				.20	.38				0.87
Utah.																																	
Alpine	Great Salt Lake																							.40			.28		.37				1.05
Annabella	Sevier Lake															.09												.04					0.13
Beaver	do															.37			.04	T.				.05		.62			.30				1.38
Black Rock	do																										.20	.20	.10				0.50
Castle Rock	Great Salt Lake									.05														.08			.10	.08	T.				0.31
Cedar City	Desert															.07								.05			.28		.04	.08			0.52
Corinne	Great Salt Lake																				T.		.60	T.									0.60
Deseret	Sevier Lake																										.25		.35				0.60
Enterprise	Desert																																
Farmington	Great Salt Lake																							.25			T.		.58				0.83
Fillmore	Sevier Lake																							.04			.43		.41				0.88
Friese Summit	Great Salt Lake									.51											.33							.43					1.27
Frisco	Desert																										.28		.15				0.43
Garrison	do														T.																		T.
Government Creek	do									T.						T.						*	.38				T.	*	.43				0.81
Grantsville	do																						.12						.18				0.30
Heber	do									.10											T.			.10			.30	.25	.20				0.95
Henefer	Great Salt Lake	.60								.07									T.		T.	T.		.30			.45		.18				1.60
Ibapah (near)	Desert																		T.			.02		.03			T.	T.	.15				0.20
Ibex	do																					T.					T.	*	.17				0.17
International	Great Salt Lake								.02							T.							.42	.02			.05	.37	.05				0.93
Kanosh	Sevier Lake																						.12			.32		.12					0.56
Kelton	Great Salt Lake																											T.					T.
Levan	Sevier Lake																				.02			.03			.45		.23				0.73
Logan	Great Salt Lake																				T.		.55					.70					1.25
Lucin	Desert																																0.00
Manti	Sevier Lake																							.14			.41		.10				0.65
Marion	Great Salt Lake	.03								T.											T.			*	.02		.32	.04	.30	T.			0.81
Marysvale	Sevier Lake															.08			T.		.01						.17		.09	.01			0.36
Meadowville	Great Salt Lake	.05								T.																	.34		.11	.03			0.53
Milford	Sevier Lake																									.30			.20				0.50
Millville	Great Salt Lake	.02																			.02			.39	.03		.11	.01	.48				1.06
Minersville	Sevier Lake															.05								.11			.45		.23	.04			0.88
Modena	Desert														T.								.15			.06	.25	.02	.32				0.80
Morgan	Great Salt Lake																																
Moroni	Sevier Lake									T.					T.				T.		T.		T.	.04			.34		.10	T.			0.48
Mt. Nebo	Great Salt Lake																				T.			.03			.16		.20				0.39
Mt. Pleasant	Sevier Lake															T.							.03				.05		.10				0.18
Nephi	Great Salt Lake																							.05			*	.76					0.81
Oak City	Sevier Lake																										.63		.32				0.95
Ogden	Great Salt Lake																							.60			.06		.86				1.52
Panguitch Lake	Sevier Lake														.20						T.		.05			.45	.30	T.	T.				1.00
Park City	Great Salt Lake									.01											.01				.02	.01	.04						0.09
Parowan	Desert																							.05			.20		.17				0.42
Payson	Great Salt Lake									T.											.06			.13			.50	.05	.50	T.			1.24
Pinto	Desert															.10								.01			.46		.27				0.84
Promontory	Great Salt Lake																												.10				0.10
Provo	do									T.											T.			.25			.65		.27				1.17
Randolph	do									T.																.08	.25	.18			.04			0.31
Richfield	Sevier Lake																										.20						0.20
Saltair	Great Salt Lake																																
Salt Lake City	do	T.								T.									T.				.44	.16			.27	.05	.66				1.58
Scipio	Desert																		T.					.19			1.00		.11				1.30
Silver City	do																																
Spanish Fork Canyon	Great Salt Lake																							.18				.53	.66	.02			1.39
Thistle	do																																
Tooele	do									T.														.30					.60				0.96
Utah Lake Pump'g Sta	do	.04																			T.		T.	.51		*	.34		*	.33			1.22
Woodruff	do						.02																.01				*	.02					0.05
Oregon.																																	
Ana River	Interior Drainage																				.03		.09	T.									0.12
Burns	do																																
Burns Mill	do																																
Cecil's Ranch	do																																
Christmas Lake	do																.01	T.	.06	.32	.03	.01											0.43
Diamond "H" Ranch	do																																
Paisley	do																		.05	.11			.27	.23	.01								0.67
Plush	do																			.10	.05	T.	T.	.20									0.35
"P" Ranch	do																																
Silver Lake	do																																
Valley Falls	do																																
California.																																	
Al Tahoe	Truckee														.01		.01			.35			.12	.52		T.	T.	T.	.16				1.17
Bijou	do																			.32			.02	.26		.06		.12					0.78
Boca	do																																
Bodie	East Walker						.07																.04	.01					.20				0.32
Bridgeport	do																																
Brockway	Truckee																			.29			.15	.18			.10						0.72
Deer Park	do																																
Donner Ice Camp	do																		*	*	1.20		*	.80									2.00
Fales' Hot Springs	West Walker																							.27				.08					0.35
Glen Alpine Springs	Truckee																.02		*	2.05	1.37		.24	.89		.13	.24	.02					4.96
Hobart Mills	do																		.01	.40	.65		.17	.65			.15	.13					2.16
Lundy	East Walker																							.10										0.10
Markleesville	East Carson																		T.	.17	.20		.10	.52				.32					1.31
McKinney	Truckee																		.70	.40				1.00									2.10
Shields' Ranch	West Walker															T.	T.			T.				.15									0.15
Silver Creek	East Carson																		.10	.17	.21		.10	.51				.31					1.40
Tahoe	Truckee																		T.	1.40				.60	T.	T.		.20					2.20
Tallac	do													T.						.38	.19			.48		.03		.04	T.				1.12
Truckee	Truckee																	.02	.02		.20												0.24
Woodfords	West Carson																							.30				.10					0.40

TABLE 2.—*Daily precipitation for March, 1910. District No. 10*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Nevada..																																	
Aurora	East Walker																						T.										T.
Austin	Reese																																
Battle Mountain	Humboldt														T.				.08					T.		T.			T.				0.08
Beowawe	...do																																0.00
Buckskin	Walker																																
Carlin	Humboldt																																0.00
Carson Dam	Carson																		T.				T.	T.									T.
Cherry Creek	Humboldt																						.06	T.			.01	.02	.02				0.11
Clover Valley	...do																																
Cobre	...do																								T.								T.
Columbia	Desert																						.29										0.29
Dutton	Humboldt																																
Elko	...do																									.06		T.	T.				0.06
Ely	...do															.08										.05		T.					0.13
Eureka	...do														.08								.25			.20		.10	.18				0.81
Fallon	Carson														T.				T.		.07			.03			T.		T.				0.10
Fernley	Truckee																		.18	T.				T.		T.		T.					0.18
Gardnerville	Carson																								.20								0.20
Geyser	Humboldt																	T.															T.
Glenbrook	Truckee																			.10			.25										0.35
Golconda	Humboldt																											.20					0.20
Halleck	...do																																0.00
Jean	Desert																																0.00
Leetville	Carson																		.15														0.15
Lewers Ranch	Truckee													*	.05								*	.10		T.			.35			0.50
Lovelock	Humboldt																							.01			.01						0.02
McAfees Ranch	Desert																																
Millett	Reese														.14	T.							.05			.10		T.	.05				0.34
Mina	Desert																																0.00
Mount Rose Ranch	Truckee														.40				T.	T.	T.		T.	.20		.40	T.	.20					1.20
North Fork	Humboldt																		.40	T.				.03		.10	.02		.03				0.58
Palmetto	Desert																																
Paradise Valley	Little Humboldt																						.10			.15							0.25
Potts	Reese														.05			T.	T.				T.			T.	T.	T.	T.				0.05
Quinn River Ranch	Humboldt																			.10	.22			.17				.14	.03				0.66
Reno	Truckee													T.	.03						T.		T.	.04		.01		.14					0.22
Rose Creek	Humboldt												T.		.01				T.	.11		*	.18			*	*	.06	T.				0.36
Smith	West Walker												T.	T.					T.					.05		.28	T.							6.33
Spooners Ranch	Truckee																		T.	.21				.30		.07		.10					0.68
Soda Lake	Carson																		.03	T.					.01								0.04
Sweetwater	East Walker																							.20					T.				0.20
Tecoma	Humboldt																																0.00
Tonopah	Desert																						.16	T.				.04					0.20
Wabuska	Walker																		T.							T.							T.
Wells	Humboldt																																0.00
Willow Point	Little Humboldt																																0.00
Winnemucca	Humboldt														T.	.02			T.	.07			T.	.08	T.		T.	.06	.01				0.24

TABLE 3.—*Maximum and minimum temperatures at selected stations, March, 1910. District No. 10, Great Basin.*

Date.	Wyoming.						Utah.																				Nevada.			
	Border.		Evanston.		Weston, Idaho.		Cortnne.		Deseret.		Government Creek.		Marysvale.		Modena.		Ogden.		Parowan.		Provo.		Salt Lake City.		Burns, Oreg.		Elko, Nev.		Ely.		Eureka.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	46	31	40	28	46	35	50	36	66	25	58	34	65	24	65	29	51	39	65	29	56	34	60	42			56	27	46	24	57	32
2	52	32	50	28	53	30	57	27	68	26	64	34	67	25	66	28	51	34	66	28	65	31	63	39			58	29	50	26	60	31
3	45	20	52	26	51	28	57	28	70	27	64	35	68	25	69	29	54	35	67	29	70	34	64	40			56	36	52	26	62	32
4	46	13	53	26	54	29	62	31	74	29	69	40	70	26	70	31	57	36	67	30	73	35	65	42			60	28	49	20	66	35
5	49	17	50	30	57	30	67	32	72	50	63	29	71	32	71	33	57	39	69	32	63	44	61	42			62	28	51	21	64	34
6	43	10	52	21	53	25	64	28	67	25	62	28	71	24	69	27	53	30	71	33	65	30	59	35			61	25	52	21	64	34
7	44	15	52	26	56	30	66	34	71	27	63	30	70	29	69	31	57	34	71	34	69	35	59	39			62	27	52	26	64	35
8	42	28	46	27	52	27	65	32	64	30	61	28	63	26	64	35	53	34	72	35	59	35	54	37			60	36	52	28	64	36
9	39	11	40	28	48	32	64	28	58	27	60	26	50	25	57	32	49	32	56	33	54	30	48	37			58	23	48	22	62	32
10	44	16	45	17	50	20	57	27	57	18	61	22	56	18	57	21	49	30	60	28	57	26	51	32			61	28	49	20	64	34
11	47	17	51	20	55	24	60	26	63	18	56	25	64	17	61	20	54	41	64	22	61	27	55	33			58	25	50	23	64	34
12	47	17	55	24	60	25	65	29	68	19	63	28	66	20	65	23	58	35	73	23	67	30	60	36			62	27	52	26	66	36
13	51	17	57	25	65	26	63	30	69	25	63	32	67	23	64	31	63	35	66	20	70	34	63	39			68	28	54	28	68	38
14	49	19	58	26	65	26	67	32	69	28	60	30	64	25	62	32	64	38	70	23	65	36	65	41			62	26	52	28	68	38
15	51	21	58	28	66	29	68	38	64	32	64	32	66	27	60	30	62	42	77	28	67	38	60	44			52	24	54	30	70	40
16	55	22	56	26	65	29	71	34	68	28	67	34	65	24	64	26	64	41	82	32	68	35	64	42			62	29	56	30	72	42
17	59	24	58	29	67	30	70	35	72	30	67	38	71	26	67	30	67	44	68	33	73	38	68	44			66	34	60	34	74	44
18	63	27	63	30	71	36	69	30	73	31	70	41	71	28	68	34	72	47	67	34	73	41	71	48			78	30	62	36	78	46
19	65	28	65	33	71	35	75	35	72	39	70	43	70	28	66	34	75	49	65	34	76	38	73	50			72	23	58	32	76	46
20	66	29	65	33	72	43	71	36	73	42	69	49	72	37	63	35	75	49	71	33	77	40	74	53			62	34	60	34	76	46
21	67	33	63	35	73	41	73	30	76	39	72	40	71	37	69	32	76	52	71	33	77	45	74	54			72	38	62	36	78	48
22	61	41	62	36	72	45	76	47	70	45	64	39	69	45	58	31	72	58	66	46	76	57	71	35			58	34	60	36	74	46
23	53	22	50	28	58	32	57	34	61	33	59	29	58	23	51	24	58	33	60	35	62	35	54	31			54	28	52	30	70	42
24	48	26	49	24	47	31	49	38	61	25	52	28	61	20	56	23	50	37	58	26	64	35	50	38			50	22	48	24	64	36
25	55	26	54	28	58	30	50	33	60	27	55	28	57	30	52	27	56	31	56	34	62	33	55	38			55	25	50	26	66	38
26	49	33	49	32	50	39	62	35	55	38	52	36	56	32	44	28	54	42	54	30	53	35	54	38			50	26	52	28	68	40
27	49	22	48	27	52	30	60	25	52	32	51	33	53	20	46	26	55	40	52	28	56	34	55	40			42	28	50	28	70	42
28	45	32	43	29	48	32	61	28	40	33	46	31	46	30	40	26	52	32	50	26	51	31	47	35			45	32	48	32	70	44
29	36	16	34	18	45	28	56	30	45	30	41	25	40	27	46	24	45	30	55	25	45	29	44	32			52	26	50	26	68	40
30	50	15	54	17	53	20	64	25	56	21	63	22	54	22	54	24	52	30	60	24	59	25	53	30			64	28	54	30	72	44
31	56	21	55	24	61	25	67	28	65	24	63	32	67	17	63	25	62	35	64	23	68	31	62	36			64	22	52	24	68	40
Mns	50.9	22.6	52.5	26.7	57.9	30.4	63.3	31.6	64.5	29.8	61.0	32.3	63.2	26.2	60.5	28.4	58.6	38.2	64.9	29.8	64.5	34.9	59.9	39.4			59.4	28.3				

Date.	Nevada.																													
	Fallon.		Jean.		Lovelock.		Millett.		Mina.		Quinn River Ranch.		Reno.		Tecoma.		Tonopah.		Winnemucca.											
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	68	38	85	35	76	40	61	35	75	28	.....	.....	68	36	56	10	59	40	60	39										
2	70	34	84	37	77	38	68	26	78	27	.....	.....	71	34	61	22	63	45	67	32										
3	73	32	83	37	72	36	70	24	75	30	.....	.....	71	34	60	24	68	49	66	32										
4	67	30	.....	.....	77	39	70	28	72	29	.....	.....	69	32	56	25	67	44	65	32										
5	64	34	64	39	88	35	70	35	65	27	71	26	64	22	68	37	58	27	63	46	62	36								
6	63	27	65	28	.....	.....	65	45	68	22	72	29	62	24	65	30	62	28	65	45	65	32								
7	63	32	67	30	87	35	67	40	65	23	70	30	65	27	69	32	62	28	63	44	65	31								
8	55	28	63	31	86	37	60	41	60	22	67	30	60	26	64	31	64	26	58	37	61	31								
9	51	26	62	29	84	42	68	26	58	25	71	24	.....	.....	62	30	56	20	58	34	55	32								
10	61	33	65	27	77	43	69	28	61	20	72	24	.....	.....	70	29	54	15	58	34	60	31								
11	63	27	68	28	73	30	72	33	62	20	73	26	.....	.....	70	33	60	20	59	41	64	33								
12	63	32	70	31	76	31	77	38	65	23	71	32	70	23	71	34	62	26	59	41	65	35								
13	63	34	72	32	.....	.....	76	30	67	29	69	32	72	28	67	36	64	30	60	44	72	36								
14	59	36	67	38	80	40	80	38	60	34	67	32	72	34	60	36	65	30	52	37	67	40								
15	58	30	65	34	77	34	65	35	61	31	70	31	64	30	62	34	66	28	55	34	63	35								
16	61	33	69	33	78	35	77	29	65	27	69	38	68	30	64	31	66	30	60	42	69	39								
17	65	37	73	38	83	38	73	40	69	33	74	39	70	28	69	44	67	38	61	43	70	38								
18	63	37	70	42	88	47	76	38	65	32	72	48	70	42	64	46	66	39	60	44	67	45								
19	64	39	73	39	78	42	75	32	65	47	79	48	67	40	64	45	71	31	59	43	70	43								
20	59	44	64	41	.....	.....	68	30	62	47	74	52	59	38	52	39	70	27	56	42	64	43								
21	61	35	69	37	87	42	73	38	62	46	72	21	64	35	60	36	72	26	56	41	68	39								
22	53	29	62	38	82	45	70	35	58	33	56	29	53	37	50	34	67	22	44	30	56	39								
23	43	25	50	33	66	35	65	41	49	25	59	36	44	32	42	30	64	22	46	28	44	31								
24	50	27	52	26	72	30	55	29	54	24	60	24	49	23	45	26	54	28	51	33	48	29								
25	50	27	56	33	70	32	60	35	51	24	58	26	53	32	50	24	54	32	48	33	53	34								
26	52	28	56	30	60	34	55	38	53	23	59	32	51	29	50	29	51	31	46	30	51	31								
27	43	29	52	38	.....	.....	50	30	48	33	57	32	49	35	50	32	52	23	37	29	49	34								
28	41	24	58	32	60	34	59	32	50	25	60	30	48	33	55	33	50	15	47	27	52	35								
29	44	22	57	25	74	33	58	30	55	29	70	26	54	29	61	28	52	26	52	28	54	28								
30	58	22	65	24	67	42	67	26	63	17	75	25	64	25	69	27	52	28	58	32	65	28								
31	67	28	71	28	80	33	66	31	69	20	74	31	.....	.....	68	33	50	26	64	43	67	30								
Means	57.5	30.5	64.6	32.5	77.9*	36.8*	68.3	34.7	61.3	28.2	69.1	31.2	.....	.....	61.9	33.4	60.1	25.9	56.5	38.2	61.4	34.6								